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**UTHM**

Universiti Tun Hussein Onn Malaysia

**UNIVERSITI TUN HUSSEIN ONN MALAYSIA**

**FINAL EXAMINATION  
SEMESTER I  
SESSION 2022/2023**

COURSE NAME : JIGS AND FIXTURE DESIGN  
COURSE CODE : BDX 20102  
PROGRAMME CODE : BDX  
EXAMINATION DATE : FEBRUARY 2023  
DURATION : 2 HOURS  
INSTRUCTION :  
1. ANSWER ALL QUESTIONS.  
2. THIS FINAL EXAMINATION IS CONDUCTED VIA **CLOSED BOOK**.  
3. STUDENTS ARE **PROHIBITED** TO CONSULT THEIR OWN MATERIAL OR ANY EXTERNAL RESOURCES DURING THE EXAMINATION CONDUCTED VIA CLOSED BOOK

THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

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**TERBUKA**

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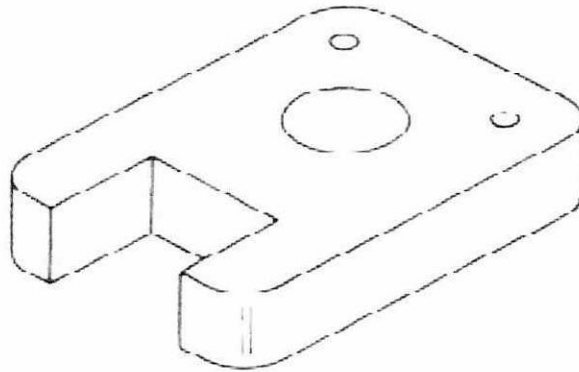
- Q4** (a) Discriminate the use of a conventional fixture over a modular fixture. (12 marks)
- (b) Make a comparison between computer aided fixture design and the conventional way to design a fixture. (8 marks)
- Q5** (a) Justify a design consideration of fixture for welding operations by elaborating the objectives of design, locating and holding of the welding work piece, the type of material and the fool proofing element needed to perform the welding. (10 marks)
- (b) Appraise the use of modular fixture to weld an aircraft component, over a conventional fixture. (10 marks)

**-END OF QUESTION –**

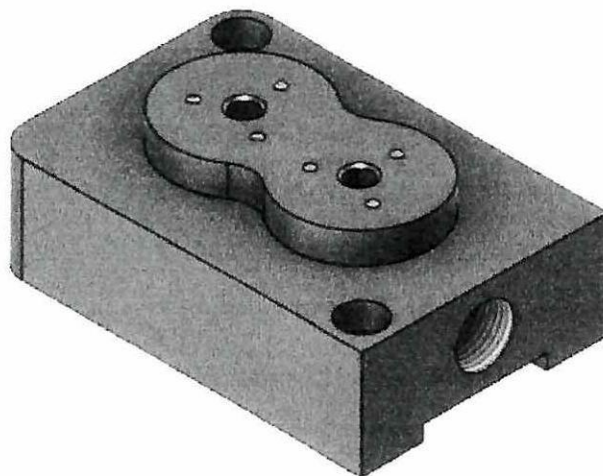
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**Figure Q1(b)**



**Figure Q3(a)**